

REMARKS

Claims 1-20 are pending in the present application. The Examiner is maintaining the rejection of claims 1-11 and 13-20 under 35 U.S.C. §102, and claim 12 under 35 U.S.C. §103.

Section 102 Rejections

Claims 1-11 and 13-20 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,677,296 (Lischke, *et al.*).

Applicant respectfully traverses these rejections.

At the very least, Lischke does not disclose or suggest a method or system for measuring dimensions of minute structures that include, e.g., *determining at least two measuring regions over the minute structures*, and *calculating dimensions of the minute structures corresponding to the measuring regions*, as essentially claimed in claims 1 and 9.

Moreover, Lischke does not disclose or suggest a method for measuring dimensions of minute structures that includes, e.g., *determining at least two measuring regions in the image; and calculating dimensions of the minute structures within each measuring region simultaneously*, as essentially claimed in claim 18.

The Examiner relies on Col. 4, lines 12-36 and 54-62, and Col. 5, lines 33-63, as disclosing these features. It is respectfully submitted that the Examiner's reliance upon Lischke in this regard is misplaced.

Lischke discloses how to use a grid mask to determine one measuring region over a minute structure of a specimen to measure a length of the structure. (Col. 5, lines 33-63.) This determination involves three sequential steps. First, the distance *l1* from a first measuring edge to an adjacent grid slat is measured. Second, the specimen is shifted a number of grid openings until a second measuring edge is visible. A distance *l2* can be determined by counting the number of grid openings. Third, the distance *l3* from the

second edge to an adjacent grid slat is measured. The distance between the first measuring edge to the second measuring edge can be determined from $l_2 + l_3 - l_1$.

This measurement disclosed in Lischke does not, however, involve “determining at least two measuring regions over the minute structures” and “calculating dimensions of the minute structures corresponding to the measuring regions”, as recited in claims 1 and 9. Although there are three steps involved in Lischke’s measurement, Lischke’s use of the grid mask to measure a distance involves only one measuring region and calculating the length of one minute structure. A non-limiting example of the “at least two measuring regions over the minute structures” is illustrated in Applicant’s FIG. 4, which depicts two minutes structures **A** and **B**, with movable boundaries 132 for measuring the minute structures indicated by the dotted lines. Lischke’s FIG. 4 and its accompanying explanation (Col. 5, lines 33-63) only disclose one measuring region over the minute structure in the diagram.

Furthermore, there is no disclosure of “calculating dimensions of the [at least two] minute structures within each measuring region simultaneously”, as recited in claim 18, since Lischke only discloses one measuring region, and the steps involved in measuring that minute object are performed sequentially, as discussed above.

In response to Applicant’s arguments, the Examiner states on page 7 of the Final Office Action that Lischke’s method “determines a whole bunch of such minute structures over a 2-dimensional image”. However, claims 1, 9, and 18 recite “at least two measuring regions”, while Lischke only discloses one measuring region. Even if one regards each pair of adjacent grid slats and the space between them as a single minute structure, Lischke only discloses one measuring region for measuring a plurality of such minute structures. Applicant urges that the Examiner has misconstrued the language of claims 1, 9, and 18. The Examination further misconstrues Applicant’s statement that Lischke does not disclose “calculating dimensions of the minute structures corresponding to the measuring regions”, for Lischke only discloses calculating the dimensions of the minute structures corresponding to one measuring region, not “at least two measuring regions” as recited in claims 1, 9, and 18.

Thus, Lischke does not disclose the features recited in Applicant's claims 1, 9, and 18. Therefore, Applicant urges that Lischke does not anticipate claims 1, 9, and 18. Reconsideration and withdrawal of these section 102 rejections are respectfully requested.

Claims 2-8 depend from claim 1; claims 10-11 and 13-17 depend from claim 9, and claims 19-20 depend from claim 18, and are thus patentable for at least the same reasons as claims 1, 9, and 18, respectively. Reconsideration and withdrawal of these section 102 rejections are respectfully requested.

Section 103 Rejections

Claim 12 was rejected under 35 U.S.C. §103(a) as being obvious over Lischke in view of either U.S. Patent No. 4,929,041 (Vahala, et al.), or U.S. Patent No. 5,659,172 (Wagner, et al.).

Applicant respectfully traverses these rejections.

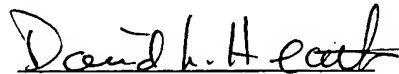
Claim 12, which depends from claim 9, recites *a first electron detector for detecting primary electrons scattered from the minute structures*. The Final Action concedes that Lischke does not disclose such a feature, but then cites either Vahala or Wagner as disclosing this feature. Applicant urges, however, for the reasons stated above in connection with the section 102 rejection, that Lischke does not teach or suggest *determining at least two measuring regions over the minute structures and calculating dimensions of the minute structures corresponding to the measuring regions*, as recited in claim 9, and neither Vahala nor Wagner make up for these deficiencies. Therefore, since the combination of Lischke with either Vahala or Wagner does not teach or suggest all of the claimed limitations of claim 12, Applicant urges that a *prima facie* case of obviousness of claim 12 cannot be maintained. Reconsideration and withdrawal of this 103 rejection are respectfully requested.

CONCLUSION

Applicant urges that claims 1-20 are in condition for allowance for at least the reasons stated. Early and favorable action on this case is respectfully requested.

Respectfully submitted,

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